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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/708,569	11/09/2000	Makiko Endo	35.C14920	2291

5514 7590 12/23/2003

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EXAMINER

SCHWARTZ, PAMELA R

ART UNIT PAPER NUMBER

1774

DATE MAILED: 12/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/708,569

Applicant(s)

ENDO ET AL.

Examiner

Pamela R. Schwartz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 23,24,27 and 29-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23,24,27 and 29-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \*   c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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1. The rejection over Miyabayashi (EP 0900831) has been withdrawn because the reference is not considered to disclose colored portions which are aggregates of fine particles having coloring material adsorbed thereon in a monomolecular state.
2. Claims 24 and 29-32 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-32 of U.S. Patent No. 6,460,989. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the patent, directed to an ink set, recite the inclusion of coloring material and fine particles which adsorb the coloring material in a monomolecular state. See claims 1, 3, 4, and 10-12. Since the ink set would be used to make the instantly claimed invention, and the particulars of how to make the claimed imaged article are recited by the patent claims, instantly claimed invention is obvious therefrom.
3. Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of U.S. Patent No. 6,659,601. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patented recording method discloses an ink and a liquid composition, the liquid composition containing fine particles, wherein the coloring material is adsorbed on the surfaces of the fine particles in a monomolecular state such that the particles aggregate to each other and with the surfaces of the particles being charged with a polarity opposite to that of the ink. See claims 1, 12 and 16. Since the recording method would be used to make the instantly claimed invention, and the

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particulars of how to make the claimed imaged article are recited by the patent claims, instantly claimed invention is obvious therefrom.

4. Claims 24 and 29-32 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-40 of U.S. Patent No. 6,517,199. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent discloses a liquid composition for forming a colored area of an image on a medium by application of charged ink containing a coloring material wherein the aqueous ink composition contains fine particles that adsorb the coloring material of the ink in a monomolecular state. See claims 2, 6, and 8. Since the aqueous liquid composition would be used to make the instantly claimed invention, and the particulars of how to make the claimed imaged article are recited by the patent claims, instantly claimed invention is obvious therefrom.

5. Claims 23, 24, 27 and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Field et al. (6,420,039). The reference discloses a recording medium having a support and one or more ink receptive coatings (see col. 3, lines 4-11, 40-45, and 51-60). The coatings may contain pyrogenic silica which is aggregates of smaller primary particles. The silica is cationic and has a mean diameter of less than about one micron. The silica has a cationic coating so that it has a zeta potential that changes by less than about 25% when the aluminum content of the dispersion is increased by about 50% by weight (see col. 6, line 54 to col. 7, line 6). While the zeta potential is not described in terms used by the instant claims, from the description of the reference, it would have been obvious to one of ordinary skill in the art to sufficiently coat the silica

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so that the zeta potential is sufficient to immobilize anionic dyes as described by the reference (see col. 8, lines 29-42). As described, the mechanism of the reference relies on opposite charges of the dye and the coated silica so that the dye is immobilized. Table 2 sets forth print density for different colors. Consequently, the reference discloses printing with multiple colors.

The values not specifically set forth by the reference are the color saturation and the ratio of coloring material in peripheral printed portions compared to the remaining portions. With respect to color saturation, this is a known and inherent property of the printed medium and it would have been obvious to one of ordinary skill in the art to optimize the visual characteristics of the image. With respect to the ration of coloring material to fine particles in the peripheral portion of the image compared to in the remainder of the image, since the mechanism for capturing the colorant in Field et al. appears to be identical to the mechanism instantly claimed, this ratio should be similar in the medium of the reference to that in the instantly claimed invention.

6. Applicant's arguments with respect to claims 23, 24, 27 and 29-32 have been considered but are moot in view of the new ground(s) of rejection.

7. Finally, it is noted that the examiner requested clarification concerning applicants' copending applications and whether the materials recited therein were in the form of fine particles. No clarification concerning this issue has been received.


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela R. Schwartz whose telephone number is 703-308-2424 ((571) 272-1528 as of 12/31/03). If attempts to reach the examiner by

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telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on (703) 308-0449 ((571) 272-1526 as of 12/31/03). The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

PRSchwartz  
December 12, 2003



PAMELA R. SCHWARTZ  
PRIMARY EXAMINER